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Biotechnological Aspect for the Production of Camptothecin from Callus Culture of Anticancer Medicinal Plant: *Nothapodytes Nimmoniana*

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Nothapodytes nimmoniana (syn. *N. foetida*) is endangered plant which rich source of camptothecin (CPT), a well known anticancer alkaloid. The cellular target of CPT is DNA topoisomerase –I inhibitor as potential therapeutic agents. It was extracted from different parts of plant collected from mahabaleshwar region of Maharashtra, India. Callus tissue culture technique were developed using medium composition for enhancement of CPT and were comparatively analysis of CPT contents. The methonolic extract of callus culture grown in optimized medium with growth regulators (gibberellic acid, picloram, thidiazuron). In results, the methonolic extract of callus culture showed a high percentage of CPT as compared to the methonolic extract of fruits, leaves, stem and roots. In conclusion, the concentration of CPT accumulated high from the callus tissue culture comparatively other parts of like fruits, leaves, stem and roots. The optimizing medium showed alternative method for enhance production of CPT.